

MAKING FLIGHT PATH HISTORY



Can the biggest changes to flight paths
for over half a century work for
communities as well as the industry?

DECISION TIME LOOMS

Introducing PBN

- a new type of flight path

The biggest changes to flight paths in the UK for over half a century are now underway. Similar changes are taking place at airports worldwide. They are driven by a move away from ground-based technology to satellite technology to guide planes. Their impact on local communities will be significant.

The new flight paths, called **Performance Based Navigation (PBN)**, will be different to the routes we currently have. They will be dedicated, narrow, precise routes which will increase reliability, reduce the costs of fuel for airlines, cut CO2 per plane but allow more flights to use most airports.

Their impact on communities will depend on how they are implemented.

America has got it disastrously wrong, concentrating all the planes on narrow routes over the same communities, some of them new communities, without a break. Residents have been in revolt. Lawsuits have ensued.

ACOG, also known as **Our Future Skies**, the body overseeing the expansion in the UK - <https://www.ourfutureskies.uk/about-us/who-are-acog/> - has got the chance to learn the lessons from the US and design routes that work for residents as well as the industry.

It is Canute-like thinking for campaigners to believe they can stop the onward march of technology



Our Future Skies

- *can* **belong to all of us**

ACOG can make history if it designs PNB routes that are a win-win for communities and the industry.

Getting it right will make the UK a world leader

What does ACOG need to do?

Understand the importance of flight paths to communities

Interpret its remit as giving as much weight to improving the noise climate as to increasing the efficiency of the industry when designing the routes

Avoid concentrating the routes over the same communities, US-style. If these new, narrow routes are rotated they can bring respite from the noise

Be open to other options if respite is not right for an airport or community

Use the dedicated routes to increase the heights of aircraft

Involve community representatives in the design of the routes and engage with the general public

Make history!



Heathrow's approach to designing its flight paths for a 3rd runway (now on hold) has been widely commended.

ACOG could do well to adopt a similar approach.

1. The importance of flight paths to airport communities

Forget the talk of communities' climate change concerns. It is a marriage of convenience for most residents.

Communities are simply looking for an improved noise climate over *their* area

That is all about flight paths and the volume and height of planes.

Who are these communities?

Typically, they are **reluctant campaigners**. They are almost the polar opposite of the climate activists who aspire to *global* change, who are fighting an international cause bigger than themselves. Airport communities, by contrast, simply want a *local* problem dealt with. They want rid of the noise (or for it to be reduced) and go back to their day-to-day lives. They are not, with some exceptions, into a cause. They just want *their* problem sorted.

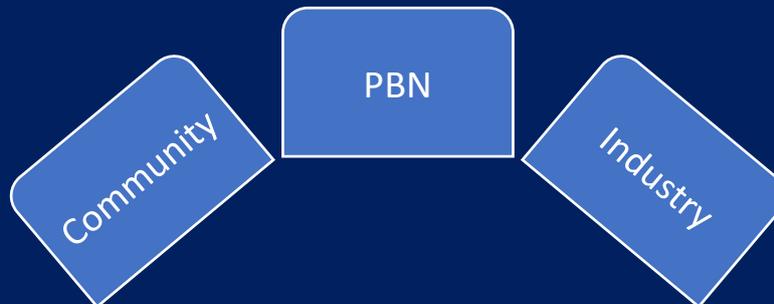
There is **an element of Nimbyism**. Not out-and-out Nimbyism: airport communities tend not to argue all the flights should go elsewhere as they relate to others disturbed by noise but most would lose little sleep if the price of fewer flights over them was more flights over somebody else.

At heart residents remain **locally focused**. They tend not to have an aim or a strategy beyond reducing the number of planes and the noise over their own areas. Wider aviation policy is of little interest to local communities unless they see it as a useful tool to cut noise in their area.

Flight Paths - where they are; how many planes use them; and at what height - is what matters to airport noise communities.

2. (All) Our Future Skies

- getting the balance right



We pointed out that the benefits to industry are clear but that environmental and community benefits are largely uncertain
Charles Lloyd, Aviation Communities Forum

A screenshot of the American Citizens United website. The page features a navigation bar with links: 'NQSC Home Page', 'Congressional Quiet Skies Caucus', 'Organizations', 'National Petition', and 'Archives/Information Exchange'. Below the navigation bar is a large header with the text 'AMERICAN CITIZENS UNITED' and a sub-header: 'These organizations represent American citizens across the United States whose lives are threatened, or have been impacted, by the Federal Aviation Administration's NextGen RNAV procedures.' The main content area is a grid of links to various organizations, including 'LET'S MAKE SOME NOISE (PHOENIX)', 'SCOTTSDALE COALITION (SCANA)', 'SAVE OUR SKIES SANTA CRUZ', 'UPROAR (SAN FRAN BAY AREA)', 'SAVE OUR SKIES EAST BAY', 'QUIET SKIES NORCAL', 'SAVE OUR SKIES MONTEREY COUNTY', 'CONCERNED RESIDENTS AGAINST AIRPORT POLLUTION', 'NO PLANE NOISE - SAN DIEGO', 'FRIENDS OF LAKE ARROWHEAD', 'QUIET SKIES IDYLLWILD', 'AIRFAIR', 'LOS ANGELES FOR QUIET SKIES', 'BAY AREA JET NOISE', 'UPROAR L.A.', 'CAANP ORANGE COUNTY', 'STUDIO CITY FOR QUIET SKIES', 'CITIZENS FOR QUIET SKIES', 'QUIET SKIES BOULDER COUNTY', 'QUIET SKIES JEFFERSON COUNTY', 'QUIET SKIES ARAPAHOE COUNTY', 'GRIFT', 'WASHINGTON D.C. FAIR SKIES', 'QUIET SKIES HONOLULU', 'FAIR SKIES NATION', 'BOSTON SOUTH FAIR SKIES', 'BOS FAIR SKIES COALITION', 'HULL NEIGHBORS FOR QUIET SKIES', 'MONTGOMERY COUNTY QUIET SKIES COALITION', 'SO, MARYLAND FAIR SKIES COALITION', 'SO METRO AIRPORT ACTION COUNCIL', 'NEW JERSEY COALITION AGAINST AIRCRAFT NOISE', 'PLANE SENSE FOR LONG ISLAND', 'QUEENS QUIET SKIES', 'PROSPECT PARK QUIET SKIES', 'WESTCHESTER COUNTY', 'AIRPORT NEIGHBORS ASSOCIATION', 'CITIZENS NOISE MONITOR', 'US CITIZENS AVIATION WATCH', 'N.O.I.S.E.', 'AIRPORT NOISE LAW', 'NEXTGEN NOISE', and 'AVIATION IMPACT REFORM'. A video player is visible on the right side of the page, showing a person speaking.

American citizens' response to constant noise overhead

There is a huge amount at stake for both communities and industry. The interests of communities need to be as central as those of industry in planning PBN. The latest National Noise Attitude Survey found that 2 million people in the UK are annoyed or disturbed by aircraft noise. If PBN results in most of them living under constant noise from concentrated flight paths, it is hard to see how they will work with the guilty airport again.

3. Respite is popular

- let's go through the evidence:

- A project commissioned by Heathrow from the acoustician Ian Flindell and published in 2014 found predictable noise relief is significantly valued by the communities (1).
- Research carried out by Anderson Acoustics in association with Systra and Arup found respite was popular, even when the noise from planes on an adjacent flight path was still audible: if it was cut by 6 decibels, it was welcomed by 60% of those surveyed; with 85% welcoming a 12 decibel reduction (2).
- When Heathrow outlined the following flight path options in its airspace consultation 54% of people backed c), the respite option:

Please read pages 12 and 13 of the Airspace Consultation Document before answering this question. **Please select one of the options** a-c, and provide any comments in the box below. A trade-off exists between these three principles and we would like to understand which principle you prefer.

When designing airspace, Heathrow should:

- a) Minimise the **total number** of people overflown, with flight paths designed to impact as few people as possible
- b) Minimise the number of people **newly** overflown, keeping flight paths close to where they are today, where possible
- c) Share flight paths over a wider area, which might increase the total number of people overflown but would reduce the number of people **most** affected by the flight paths as the noise will be shared more equally

Please provide any comments you have on flight paths:

- The areas which get respite in West London value it.
- More areas are calling for it: over the 20 years I was at HACAN the single biggest issue in my mailbox was a call for respite in to end all-day flying.

PBN is well-suited to provide respite. The narrow routes can be rotated, with curved approaches considered if necessary, to reduce the number of flights over any one community. This may reduce local opposition to any growth proposals. Win-win outcome.

(1) Flindell, I. (2014). Noise Respite. What does it mean? Note for the RWG.

(2) Porter, N. (2017). Respite from Aircraft Noise: Overview of Recent Research

4. Non-respite options

- a.** There will be rural areas where concentration without respite works as planes can be threaded over unpopulated areas.
- b.** Some people are afraid that, while rotation of precise flight paths will give respite, it could be at the expense of intense concentration during the times the planes are overhead. They would prefer planes to be dispersed in a more random fashion. Where that is the clear demand of a community, its feasibility should be explored.
- c.** Respite may mean new areas will be impacted. This should be avoided wherever possible and, where it is not possible, the number of planes over these areas should be limited as they can be.
- d.** There may be places where both the airport and the community is broadly content with the status quo and is not looking for change.

5. Aircraft Heights

Ideally, these precise, dedicated flight paths will get rid of most of the conflicts with routes from other airports.

This will mean departing aircraft will not be 'held down' by flight paths used by these other airports and thus will be able to fly at higher altitudes.

It could also allow some arrivals to be higher - for example, London City aircraft are held down due to the Heathrow airspace above them.



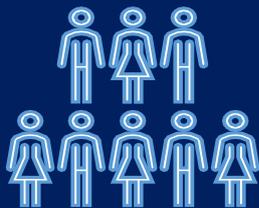
6. Involve Community Representatives

In the UK there is considerable liaison amongst most of the airport community groups across the country. Their nominated representatives to official bodies are people who have an interest in, and can speak about, the wider community.

It would assist the final outcome if these representatives were embedded in heart of the decision-making processes.

There is an argument for budgets to allow independent technical and other professional advice be made available to communities.

7. Engage with the general public



Never assume that community groups are representative of their areas!



Many undoubtedly are. But, in my experience, because there is no clear definition of what a community organisation is, there can be small groups of people, sometimes even just one person, who claim to speak on behalf of their community. They may or may not do so.

The way forward is to test what they say with the public.

A widely-praised example of this is Heathrow's approach when it was consulting on the design of its flight paths for a third runway (now paused). In addition to hearing the views of the established community groups, it staged widespread public consultation and held focus groups. On page six I gave an example of that approach. It was clear it was not a referendum, but Heathrow committed to implementing the preferred options as far as possible.



There should be an independent process, perhaps operated by ICCAN, to assess whether proposed consultation material is clear and balanced.

8. Make History!



Few PBN routes have addressed community concerns effectively when introduced. The UK has the chance to do it differently.

The next half-century will see:

- more people flying globally;
- a big cut in aircraft emissions;
- a smaller reduction in noise from planes.

It means operational improvements – together with effective mitigation – will be key to cutting noise over communities.

Well-designed PBN routes can be an important first step.

Written by John Stewart

I chaired HACAN, the organisation which gives a voice to residents under the Heathrow flight paths, for 20 years until stepping down at the end of 2020. I continue to chair HACAN East (focused on London City Airport) which has been independent of HACAN for some years now. I have worked or campaigned in the transport field for 40 years and on noise issues for the last 25 and continue to do freelance work and campaigning in these areas.

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